

REMARKS

Applicants respectfully traverse and request reconsideration.

The filing of this RCE is intended to remove the case from Appeal.

Claim 1 has been amended to indicate that the computer system includes a general purpose microprocessor that carries out a DES instruction and that the general purpose microprocessor includes general purpose registers that store states of the DES algorithm. In contrast, Jones describes a dedicated encryption chip that is solely dedicated to encryption and decryption and is not a general purpose microprocessor. Jones also refers to a general purpose microprocessor (CPU) as a host CPU but Jones' general purpose processor does not carry out encryption operations. As such, Jones does not describe a general purpose microprocessor that carries out a DES instruction nor a general purpose microprocessor that, as noted in, for example claim 22, comprises the logic units and general purpose registers that store subkeys and other information for the data encryption standard algorithm.

Claim 13 has also been amended to include the execution of a DES instruction and use of general purpose registers.

As noted in Applicants' specification on page 5, lines 20-25, in one embodiment, a general purpose microprocessor employs a DES instruction referred to as DSTEP which carries out a function in a small amount of additional hardware in a datapath while storing the states of the DES algorithm in general purpose registers. The remainder of the DES algorithm is carried out by general purpose instructions of the general purpose microprocessor. The described example eliminates the special purpose modules of the prior art and achieves high performance by executing a part of the DES instruction in the general purpose hardware. This can achieve a

speed improvement over software implementations employed in general purpose processors and remove the requirement to have dedicated hardware chips as described in Jones.


There is no teaching of a DES instruction utilized by a general purpose processor that also utilizes general purpose registers to store DES related information therein in Jones. Accordingly, the claims are in condition for allowance. Other differences will be recognized by those of ordinary skill in the art.

The Patent Office is authorized to charge any fees necessary to Deposit Account No. 22-0259.

Accordingly, Applicants respectfully submit that the claims are now in condition for allowance and that a timely Notice of Allowance be issued in this case. The Examiner is invited to contact the below-listed attorney if the Examiner believes that a telephone conference will advance the prosecution of this application.

Respectfully submitted,

Date: 2/15/00

By: 
Christopher J. Reckamp
Reg. No. 34,414

Vedder, Price, Kaufman & Kammholz, P.C.
222 N. LaSalle Street
Chicago, IL 60601
(312) 609-7500
FAX: (312) 609-5005